

**MECHANISM FOR IMPROVING CONNECTION CONTROL  
IN PEER-TO-PEER AD-HOC NETWORKS**

**ABSTRACT**

A computer system, method, and computer program product for locating target devices  
5 that support a required service in an ad-hoc communications network. The ad-hoc  
communications network connects devices and support services. Each target device is one of the  
devices and the required service is one of the services. The method comprises conducting an  
inquiry of the ad-hoc communications network to discover nearby devices. If the inquiry  
indicates that the nearby devices may include a middleware layer, the method further comprises  
10 creating a connection to each of the nearby devices and confirming whether each of the nearby  
devices includes the middleware layer. For each of the nearby devices that includes the  
middleware layer, the method further comprises sending a service discovery request, and  
receiving a response that includes distributed information. The distributed information includes  
associations between the services such as the required service, and the devices such as the target  
15 devices.